

Comments on Chapter 1 Draft December 12, 2003

- The tone of the chapter is still overly apologetic toward water development. References to “species losses”, “degraded water quality”, “no longer support ecosystem functions”, “flow regimes no longer natural”, etc. The people of California have nothing to be ashamed of with respect to historic water development. This development is what has fueled the engine of the state’s huge economy, and in fact has enhanced a number of functions for which this chapter attempts to apologize for. What would the water quality for San Franciscans be like without Hetch Hetchy? Lake Crowley is one of the most prolific trout fisheries in the nation. Nobody is suggesting we tear it down. Without the CVP and SWP systems, during drought years Sacramento would have ocean water at its doorstep. This chapter should herald the historic water development in the state as the linchpin of California’s greatness. The environmental effects are an unfortunate side-effect of this water development. But much of this has been mitigated for. And this development was by and for the people of California. No apologies necessary. At present, this chapter reads as though its intent is to place blame for ecosystem woes. It’s worth noting that without the historic water development projects, California might still look much more like “Little House on the Prairie.”
- The table on page 2 (Historical Water Portfolio Categories and 2030 Scenario Demands” does not provide sufficient information in order to determine the water balance. It would also be helpful if it accounted for the entire precipitation.
- The challenges facing California’s water resource over-emphasizes “limited” water supplies. The limiting factor is really the lack of developed water resources. The first sentence on page 2 should be deleted. Also, references to “reliable water supplies” for food production should be globally changed to “sufficient and reliable water supplies”.
- Climate change and global warming are used interchangeably. Pick one or the other and use it globally.
- Suggested edits for page 3, paragraph 2.
~~Today, more comprehensive planning is being done that considers multiple objectives. In recent decades, water conservation, recycling, groundwater conjunctive use, water transfers and other water management strategies are widely considered by water planners as part of an integrated and diversified package of water resources strategies.~~
- It’s a little optimistic to assume this water plan is suitable for the next century.
- Second bullet on page 3 mixes messages. Protecting and developing water resources are mentioned in the same sentence, along with water infrastructure and public trust assets. It isn’t clear to me that infrastructure is part of the state’s public trust assets as articulated by the public trust work group.
- First paragraph on page 4 mentions the need for broad stakeholder and public participation and support. Stakeholders and the public are one and the same. Separate references are not necessary and are undesirable.
- The Water Plan goals include protecting and restoring impacted ecosystems. CALFED is implementing an ecosystem restoration program that focuses on aquatic ecosystems.

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What are the goals for ecosystem restoration in the Water Plan? This should be more specific.

- The Water Plan management objectives include enhancing instream, riparian or terrestrial ecosystems. The connection between terrestrial ecosystems and the Water Plan are not apparent. Is this an appropriate role for the states “Water Plan”? Please explain further. Another management objective is to reduce runoff, drainage or tailwater. Is this with respect to losses to saline sinks? It is likely not a good idea to reduce all runoff, drainage or tailwater, since much of this is reused downstream.
- Edits for page 6, paragraph 2 follow.
~~To realize the full potential outlined in the Implementation and Investment Guide, significant State, federal and local investments, additional public and private partnerships, and better data and analytical tools will be needed. This Water Plan estimates a total investment of \$75 billion dollars will be needed by 2030. If the State provided one-third of this via public funding, it would need to invest about \$1 billion annually over the next 25 years.~~
- Anywhere water transfers (reallocation) are mentioned, it should be prefaced by “market-driven” or similar words to clearly show these transactions will be willing buyer-willing seller.
- Water Plan Major Recommendations – Overall, these recommendations appear weak. I was thinking the major recommendations would be in support of the Implementation and Investment Guide rather than more mundane items such as this list contains. Specific comments follow. The first bullet should be changed to reflect the language above. Also, this bullet list mixes recommendations with findings. As an example, the second bullet is a finding and should either be rewritten or dropped. The fourth bullet is insufficient. It suggests to me that surface storage is not a part of a diversified water portfolio, and that the strategies listed are paramount for each region. In fact, each region’s portfolio will be different. And it’s ridiculous to suggest each region’s diversified portfolio should include “restoring impacted ecosystems.” If there are impacted ecosystems in any given region, the impact may have been caused by factors unrelated to the portfolio, and unaffected by implementation of the portfolio. This is another glaring example of how this chapter is way too apologetic toward the environment. Please do a global review of the document to remove these apologies. The fifth bullet should have “By 2010,” deleted. The seventh bullet makes me extremely nervous. This sounds like a new state bureaucracy. It’s good for DWR, as the state’s designated water management bureaucracy, to assume this role. I need to be convinced that turning this into a task force of sorts is a good thing.
- Recommendations for Resource Management Strategies to Diversify Regional Integrated Plans – The page-and-a-half of introductory text sounds too much like a cheer (“IRP, IRP, This is good for you and me. G-o-o-o-o IRP!”). I dislike the reference to “traditional” water management strategies. The ones mentioned are as state-of-the-art today as they ever were.
- Statewide Water Planning – Again, there’s a mix of findings and recommendations. For the second bullet, same comment as previously about the standing water committee. For the third bullet, the state’s consideration of public trust is an ongoing responsibility rather

Comment: I’d rather not specify how much we expect the state vs. feds or locals should invest. It is not really helpful here, and may unnecessarily open the discussion as to who should spend their money first. It may also be that the share of any one funding sector may be greater or less than one-third. The language as I’ve modified it only offers the state’s share as a hypothetical.

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than a recommendation. It should be dropped from this list. Findings should be separated from recommendations in the interest of readability and credibility.

- Regional Integrated Resource Planning – A much better list of viable recommendations. The third bullet seems duplicative of the second.
- Data, Analytical Tools, Research and Development - The third bullet should specify General Fund funding is recommended.
- Principles for Providing State Assistance – I fear that this list of nine principles will end up codified in DWR's and others' regulations for applying for state assistance and public funds. I am unconvinced that the Water Plan needs to develop such principles. DWR, CALFED, and perhaps other state agencies, have historically worked with advisory panels to develop regulations for public funding. What's broken with that process that needs to be fixed by the Water Plan with this list of principles? With that, following are some specific comments on bullets. "Benefit the environment" is duplicated in "Identify benefits, beneficiaries and mitigation." The first bullet, "Have, or are developing, long-term integrated resource plan", is too vague. Does the Water Plan define what a long-term integrated resource plan is?

- Consequences of Inaction or Delayed Implementation edits.

The recommended actions in this Water Plan Update were developed to meet the additional estimated 2030 water demand of ? million - ? million acre-feet, while reducing the risks associated with planning for the future. These risks would worsen with inaction or delayed realization of the Water Plan. By not meeting these additional demands, groundwater overdraft will worsen. California's economy and agricultural industry will suffer, and the current collaboration among stakeholders will erode. This collaboration is an essential ingredient for regional integrated resource planning to succeed.

Aggressive and comprehensive implementation of the Water Plan's actions and recommendations is needed to reduce the risks facing California's water resources. These include: multiyear droughts, contaminated supplies and new water quality regulations, global climate change, unpredictable floods, vulnerability to catastrophic events, and significant gaps in data and analytical tools.

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Comments on Urban Water Use Efficiency Draft December 6, 2003

- The new paragraph 4 on page 2 must be changed. It juxtaposes urban WUE potential developed by CALFED (a state-sponsored study) with that developed by Pacific Institute (another state-sponsored study). Those of us who know the inside baseball facts understand these studies can't be compared. Placing these numbers side-by-side merely creates tension between the CALFED and Pacific Institute studies. The Pacific Institute numbers should be deleted from the urban WUE section and moved to the Research section.
- On page 3 the following paragraph can be deleted
"While initiatives have provided state funding for water use efficiency projects, retaining a sufficient state and federal expertise to administer the programs and provide a sufficient financial and technical assistance in this field is not easy with across the board budget and staff cutbacks. Many irrigation districts also face increasing challenges to implement water use efficiency actions and to maintain a permanent expertise or institutional continuity with limited staff and budgets."

The above paragraph sounds like sour grapes and adds nothing of value to the discussion. It may be true, but it doesn't warrant mention in the Water Plan.

- The following paragraph on page 3 can also be deleted.
"Grant programs may miss the opportunity to fund worthwhile projects in small and disadvantaged communities. It is often difficult to compete for limited grant funds, although needs may be great. The impact on farm workers is often neglected when considering different approaches to water use efficiency."

The above paragraph infers there is a tension between WUE and social impacts. This may be true, but doesn't warrant mention in the Water Plan.

Comments on Chapter 3 Agricultural Water Use Efficiency Draft December 9, 2003

- Under section c, reducing evapotranspiration. This section would benefit from reorganization. I suggest it be renamed and reorganized as follows.

c. Reducing crop water usage

- Reducing transpiration by shifting to crops that need less water (either naturally or have been bred to do so)
- Stressing crops by meeting less than 100% of their evapotranspiration needs
- Reducing unproductive evaporation during the early growing season (water that evaporates from the soil surface)

No reference to RDI as a sidebar is needed.

- On page 5, the following paragraph can be deleted.
"While initiatives have provided state funding for water use efficiency projects, retaining a sufficient state and federal expertise to administer the programs and provide a sufficient financial and technical assistance in this field is not easy with across the board budget and staff cutbacks. Many irrigation districts also face increasing challenges to implement water use efficiency actions and to maintain a permanent expertise or institutional continuity with limited staff and budgets."

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- Under section 2, implementation. The opening paragraph should tie into the overall plan for meeting the state's future water needs. This will be by a combination of water supply enhancements and demand reduction actions. WUE is one action to reduce demand, but it is part of a suite of actions.
- Under section 3, measurement, planning and evaluation. The purpose for improved levels of water measurement is unclear here. I have yet to hear of a farmer concluding he can't put in a drip irrigation system because he can't measure his water. I doubt anyone else has either. This section overstates the need for improved measurement. In fact, CBDA examined the issue, and found that the current level of agricultural water measurement in its solution area was sufficient to support the state's needs. At best, this section should be rewritten to explain that some water management practices may be enhanced by improved measurement. At worst, my feelings wouldn't be hurt if this paragraph were deleted.
- This section also mixes water management and irrigation efficiencies in a confusing manner. Is lack of information on irrigation efficiency really an obstacle for assessing irrigation

efficiencies? What is the purpose of planning as referenced in this section? Is it to plan for further improvements in WUE or to plan for further improvements in water management?

- The paragraph in this section regarding non-productive evaporation, reducing crop ET and dry-down of alfalfa should be deleted. The alfalfa discussion would be more appropriate in the Water Transfers and/or Research sections. Alfalfa dry-down and RDI are not WUE measures. Alfalfa dry-down is not a “crop per drop” measure. I’m begging you: please stop suggesting measures that would cause the state’s farmers to shoulder more risk. It may happen, but it’s not appropriate for the Water Plan. Same comment for section 6, dry-year considerations.
- Under recommendation 1, how about adding one that echoes the thought in section 4, education and motivation? It might read, “Develop financial incentive programs and processes that are simple and understandable.”
- Delete recommendation 2.2 “Employ urban recycled water for agriculture whenever practicable.” First, it’s already an EWMP and hence duplicative. Second, it infers that this is preferable to alternatives such as dual plumbing or freeway landscaping use of recycled water.
- Under recommendation 2.7, change to read “Fund large and long-term demonstration and research programs to reduce evapotranspiration and produce higher yield and quality with the same water use, and document potential savings.” This more generic description can include efforts to reduce evaporation or manage transpiration.
- Delete recommendation 2.8. What is this talking about?
- Delete recommendation 2.9 since it’s included in 2.7.
- Section 6, prepare for dry years and extraordinary shortages should be deleted. It should be covered under the section discussing extreme and prolonged droughts.
- Sidebar on regulated deficit irrigation. Please refer to previous comments on this by the ag caucus. This sidebar discussion currently takes up 2 of 13 pages. The American Heritage Dictionary, Fourth Edition, 2000 defines “sidebar” as “a short, often boxed auxiliary news story that is printed alongside a longer article and that typically presents additional, contrasting, or late-breaking news.” With two pages devoted to this sidebar, there is more text for it than for any other section in the ag WUE write up and hence it doesn’t meet the American Heritage definition. (Lisa: a potential word of the day?) Compare the RDI sidebar with the urban demand hardening sidebar. If DWR wishes to have significant text devoted to RDI, then please move it to the section on research. I reiterate here that Dr. Goldhamer’s table on estimated net water savings of RDI is so back-of-the-envelope as to be unreliable and unusable.

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Comments on Ecosystem Restoration Draft December 5, 2003

- Page 1, second paragraph. Modify second sentence to read, “Instead, as used in this Water Plan, ecosystem restoration focuses on the rehabilitation of aquatic ecosystems so that they supply important elements of their original structure and function in a sustainable manner.”
- Page 1, second paragraph. Modify the following sentence, “Ecosystem restoration is included among the water management strategies in *Water Plan Update 2003* because it is linked with improving water supply reliability.”

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It is debatable whether ecosystem restoration is a “proven strategy” to improve water reliability. In some cases, ecosystem restoration is going to reduce water supplies (i.e., Trinity River ROD). As well, quite a large chunk of funds spent by CALFED so far on ecosystem restoration will have absolutely no impact on water reliability. The San Joaquin Brush Rabbit comes quickly to mind. Also, the link between ecosystem restoration and integrated planning is not self-evident to me. It is not universally applicable in the planning process and thus should not be presented as such.

- Page 1, fourth paragraph. This paragraph should make it clear that the transformation in water management applies primarily to the Bay-Delta and its watersheds. The CALFED Program only seeks to reduce the conflicts in this system. Unfortunately, there is also a significant resistance from some environmental stakeholders to implementation of the water supply reliability components of CALFED. The Delta Improvement Program is a good example.
- Page 1, last paragraph. Here is another glaring example of the Water Plan offering apologies for historical water development projects. Because it is beyond CEQA, it is also inappropriate for the Water Plan to suggest that projects must go beyond mitigation, or else they will face conflict and opposition.
- Current condition of California’s ecosystems and restoration activity, first paragraph. The following sentence should be deleted. “The condition of California’s fisheries reveals the unintended consequences of past water management actions.” It is apologetic and mentions a single contributor to fishery declines, when in fact there are many.
- Current condition of California’s ecosystems and restoration activity, second paragraph. “Increases in Delta exports” should be modified to read, “patterns of Delta exports.” The historic volume of Delta exports have been less of a problem than the pattern of exports. The Environmental Water Account is based on this premise.
- Page 3, second paragraph. This paragraph is extremely apologetic toward historical water development and needs to tone it down. Also, the suggestion that increased exports from the Delta can be stopped by societal consensus is misleading. Want to put it to a vote? In fact, the south-of-Delta water contractors have worked hard to increase their overall exports from the Delta during wet years in order to decrease export demands during dry years. The environmental community supports this, doesn’t it? I don’t think the Water Plan should suggest that “consensus” is the model for implementing water management programs, especially since the Water Plan process is not even itself a consensus process..
- Page 4, paragraph 2. The contrast with land development investments is gratuitous and should be deleted. Aquatic ecosystem restoration and urban land development are not comparable.

- Page 5, first paragraph. There is a misstatement about the CALFED Program's commitment of \$150 million annually for endangered species. The commitment is for \$150 million annually for the ecosystem restoration program. (See CALFED Record of Decision, page 78.)
- Page 5, last paragraph on funding uncertainty. You must delete the last sentence, "In contrast, water supply projects ordinarily can rely on user fees to recover costs." This sentence sends the unmistakable message that user fees are the best way to fund ecosystem restoration efforts. This is a heart-pounder for me.
- Page 6, integrated resources planning. The first part of this paragraph overstates DWR's commitment to the CALFED Program with respect to incorporation of ecosystem restoration. The first part of the paragraph should be deleted.
- Page 6, efficiency of restoration actions. This paragraph partially misses the point that, given choices in how to achieve a unit of benefit gained (e.g., habitat restoration or flow reductions), priority should be given to non flow reduction measures.
- Page 6, funding uncertainty. Delete this paragraph completely. It isn't about funding uncertainty, it's about a Bay-Delta user fee. This is extremely controversial. CBDA has not made a decision on this. So the Water Plan should not either.

Chapter 3 – Key Points About Environmental Water Objectives

- The December 8, 2003 letter from Spreck Rosekrans and Ann Hayden to the B160 AC offers a list of environmental water objectives for consideration. This comment is a reaction to their objectives. The Interior decision for CVPIA B2 water that allows crediting among metrics should not be considered in the manner recommended in the letter. A successful court challenge has limited the B2 water to no more and no less than 800,000 acre-feet (in non dry years). Since the courts found Interior's previous accounting for the 800,000 acre-feet to be an abuse of discretion, it is inappropriate for the state to modify a federal court's decision on a federal accounting standard by a federal agency. Also, DWR staff should investigate the federal court order to restore a fishery below Friant Dam. I am unsure whether the order requires restoration of a salmon fishery below Friant. I believe it only stated that Friant was not exempted from Fish and Game Code Section 5937. These aren't the same thing; a warm water fishery would need substantially less water than a cold water fishery. Also, I'm not sure if the federal wildlife refuges can actually use Level 4 supplies. DWR should investigate how much of the Level 4 water is actually needed to fully satisfy the need of the refuges.

Comments on System Reoperation Draft December 1, 2003

- Page 7, competing beneficial uses. The second paragraph in this section should be deleted, “Problems can arise during collaboration when advocacy groups are not allowed to fully participate or when there is uncertainty over the role and responsibility of regulatory agencies.” There are instances where advocacy groups have a role to play (i.e., FERC relicensing) and instances where they do not (i.e., negotiations that led to Monterey Agreement). The first sentence in the paragraph adequately describes involvement of all interested parties, but should be modified to read, “A collaborative planning approach with all ~~affected~~ parties can help lessen conflicts associated with reoperation of facilities.” Interested parties are not the same as affected parties.
- Page 8, first paragraph. Modify following sentence, “Efforts to increase coordination among both the physical operation of the facilities and the ~~regulatory~~ agencies, ...” It is not clear that regulatory agencies “regulate” facilities. They regulate operations of facilities. There’s a subtle difference.
- Page 9, recommendation 3. Delete following sentence, “For example, projects that increase water ...” It is unnecessary to provide examples. Also, please see my comments on Conjunctive Management & Groundwater Storage.

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Chapter 3 – Extreme and Prolonged Drought Events, November 22, 2003

- The first paragraph juxtaposes “normal”, “wet”, “dry”, “extreme” in the same sentences. It’s hard to tell the context of the words when used in the same sentences. Can this be addressed?
- The fact that the state’s historical record of runoff is about 100 years is repeated in the first and second paragraphs.
- The second paragraph mentions the actual conditions experienced during 1987-92. It is true that the CVP and SWP systems did not begin to experience shortages until the fourth year of the drought. However, this would not be the case if the hydrologic conditions of 1987-92 were repeated under today’s regulatory standards; there would be shortages in every year. The text should reflect this fact. It is important to understanding the current consequences of a prolonged drought event.
- Overall, this piece appears to me to miss its mark somewhat. I was hoping this section would describe the serious impacts of multi-year droughts on the state’s economy and water supplies. While these facts are mentioned, they appear to me to be downplayed as to their importance. More interest is shown in the economic impacts than the water supply impacts. The fact that the economic impacts were only \$1.5 to \$2 billion was largely due to the fact that groundwater extractions exceeded recharge by 11 million acre-feet. The recommendations are largely oriented toward “what to do once we’re in a drought.” I would prefer the text and recommendations focus on “what do we need to do to avoid serious impacts during an extended drought.

Comments on Conjunctive Management & Groundwater Storage Draft November 21, 2003

- Page 3, first full paragraph. The sentence, “An increase in statewide supply reliability only occurs when the individual projects utilize water that would otherwise not be used by other water users or the environment.” is somewhat misleading. Some might take the view that the environment uses all water that is not currently used by other water users, therefore there is no potential to increase statewide supply reliability via additional conjunctive use. What appears to be intended is water not used by other water users or above environmental regulatory requirements. In the interest of clarity, this ought to be addressed. The same thought applies to recommendation 7.
- The second recommendation should drop “providing water for the Environmental Water Account”. This is somewhat in conflict with the other benefits of conjunctive management projects, such as increasing water supplies. Also, when the CALFED ROD established the EWA, it was clearly with the intent that the EWA have no negative impacts on water users, either in terms of water supply or cost. Since funding programs have a local cost-share component (50% or more of funding in Proposition 13 grants), this recommendation would cause water users to fund 50% of EWA water costs. I also think this recommendation should be vetted with DWR senior management and other CALFED agencies prior to its inclusion in the Water Plan.

Comments on Chapter 2 (Short Version) Draft December 9, 2003

- Page 21, degradation of the ecosystem. Once again, the text blames water development for the state's ecosystem woes. A good list of contributing factors is offered in the opening paragraph, but water development gets the most blame. Why does this theme keep popping up?
- Page 21, degradation of the ecosystem. The last sentence in the first paragraph suggests to me that avarice and gluttony are the real threats to the ecosystem. It has been population increase and its associated demand for goods and services. This sentence needs rewriting.
- Page 21, bullets in middle of page. The last bullet is essentially a repeat of the first bullet and could be deleted.
- Page 22, first full paragraph. The last sentence, "State, federal and local agencies have no cooperative method to identify and respond to existing and potential problems or coordinate rapid responses to infestations with established plans that have buy-in from all stakeholders." is vague to me. It appears to suggest that stakeholder-developed plans for dealing with invasive species are superior to government-developed plans. If this is a reference to the pike problem in Lake Davis, nobody's plan has worked so far. The sentence could be deleted without changing the context of the paragraph.
- Page 25, insufficient funding for CALFED Stage 1 implementation. The last sentence, "With today's economy, ..." should be deleted. This section of chapter 2 is identifying "challenges facing water resources and management." The sentence referenced above identifies a potential solution: beneficiaries pay more. What if paying more renders a program or project not cost-effective? There is no reason to mix problems with solutions in this section.
- Page 25, today's responses to challenges. Line 42 should be changed to read, "planning considers multiple objectives." This would make it more consistent with chapter 1.

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